

Appl. No. 09/924,197  
Am dt dated July 21, 2005  
Reply to Office action of March 23, 2005

### REMARKS

The above amendments are being made in response to the most recent Office action, and were not made previously for that reason. No new matter is added by any of these amendments to the claims. Entry of these amendments is respectfully requested.

#### Pending Claims

Claims 1-23 and 25-27 will remain pending in this application, and will so remain after entry of these amendments.

#### Support for Specific Amendments

Support for the amendments is provided by, for example:

in Claim 1, for the use of the term "nopaline synthase", on page 4, line 28; for the terms "sense element" and "antisense element" of inverted repeats from a NOS gene, on page 8, lines 28-30 and on page 22, lines 18-20; and for the phrase "an inverted repeat *prepared* with a subsequence from a nopaline synthase", on page 19, lines 1-3 and on page 24, line 2 (*emphasis added*);

in Claim 8, for the use of the term Agrobacterium "species" (in place of Agrobacterium sp.), on page 5, line 18; and

in claim 15, for "at least about 85%" identity to a plant target gene, in place of "substantial" identity, on page 10, line 18.

#### Objection to Claim 15

The amendment to claim 15, in which the targeting sequence has "at least about 85%" rather than "substantial" identity to a plant target gene, should overcome this objection.

#### Rejection under 35 U.S.C. §112, second paragraph

This rejection has been avoided by the amendment of claim 1 of "NOS" to "nopaline synthase (NOS)" as suggested by the Examiner.

Accordingly, Applicants respectfully request that this rejection be withdrawn.

#### Rejection under 35 U.S.C. §112, first paragraph (written description)

Applicants believe this rejection is avoided by the amendment to the claims and for the following reasons.

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Applicants do not claim, do not suggest, and do not disclose the use of naturally-occurring inverted repeats that may be found within the NOS gene sequence, including the 16 bp subsequence taught in the Mitra reference cited by the Examiner. Rather than this approach, Applicants have disclosed an inverted repeat that is generated by cloning a sense element and a corresponding inverted or antisense element into a polynucleotide construct. The detailed description and methods are provided, for example, on page 19, lines 4-5 ("a construct containing an inverted repeat of the terminator of the nopaline synthase (nos) gene of *Agrobacterium tumefaciens* was *prepared*....[a]n inverted nos terminator sequence was *attached* to a downstream sense nos terminator"), page 22, lines 19-20 ("the nos 3' terminator was *subcloned* into a plasmid vector. This enabled the subsequent *cloning* in the inverted orientation of a second nos 3' fragment"), and on page 23, line 14 through page 24, line 10, which disclose the generation of a inverted repeat of the 260 bp nos 3' terminator (*emphasis added*). Therefore, the inverted repeat can indeed of the length disclosed, e.g., from about 30 to about 1000 base pairs in length, preferably 30 to about 600, or 30 to 200 base pairs in length (see page 5, lines 9-12) and claimed in pending claims 1, 10 and 16.

However, for the purpose of making Claim 1 as clear as possible on this point, Applicants have amended Claim 1 with the following language: "an inverted repeat --prepared from-- a subsequence --of a nopaline synthase-- (NOS) gene; wherein the inverted repeat --comprises: a sense element comprising [a] subsequence from the NOS gene in a sense orientation; and a antisense element comprising the subsequence from the NOS gene in an antisense orientation--.

Applicants believe this claim language makes clear that the inverted repeat is *prepared* from two elements derived from the NOS gene in a sense and an antisense orientation (i.e., sense and antisense elements) of the range of length(s) claimed.

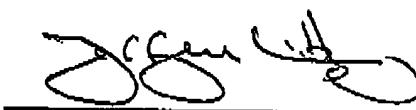
Accordingly, Applicants respectfully request that the present rejection of the claims be withdrawn.

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CONCLUSION

Applicants believe that, other than the Extension of Time, no additional fee is due with this communication. However, if the USPTO determines that a fee is due, the Commissioner is hereby authorized to charge Mendel Biotechnology, Inc. Deposit Account No. 50-1025.

Respectfully submitted,  
MENDEL BIOTECHNOLOGY, INC.



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